From glowbugs@sco.theporch.com Tue Mar 4 22:34:53 1997
Return-Path: <glowbugs@sco.theporch.com>
Received: from sco.theporch.com (sco.theporch.com [192.150.244.23])
          by uro.theporch.com (8.8.5/AUX-3.1.1)
          with ESMTP id WAA01968 for <shimshon@uro.theporch.com>;
          Tue, 4 Mar 1997 22:34:51 -0600 (CST)
From: glowbugs@sco.theporch.com
Received: from sco.theporch.com (localhost [127.0.0.1])
          by sco.theporch.com (8.8.5/SCO-5.0.2) with SMTP
       id EAA16365; Wed, 5 Mar 1997 04:30:39 GMT
Date: Wed, 5 Mar 1997 04:30:39 GMT
Message-Id: <199703050430.EAA16365@sco.theporch.com>
Errors-To: ws4s@infoave.net
Reply-To: glowbugs@sco.theporch.com
Originator: glowbugs@sco.theporch.com
Sender: glowbugs@sco.theporch.com
Precedence: bulk
To: Multiple recipients of list <glowbugs@sco.theporch.com>
Subject: GLOWBUGS digest 464
X-Listprocessor-Version: 6.0 -- ListProcessor by Anastasios Kotsikonas
X-Comment: Please send list server requests to listproc@sco.theporch.com
Status: O

GLOWBUGS Digest 464

Topics covered in this issue include:

by herr@ridgecrest.ca.us (Michael Herr)

Date: Tue, 4 Mar 1997 10:56:51 -0600
From: wmcshan@REX.RE.uokhsc.edu (Mike McShan)
To: glowbugs@theporch.com
Subject: 6-pin coil forms
Message-ID: <v01540b00af4202a7ed72@[157.142.56.167]>

Hi gang,

Does anyone know of a source for 6-pin 1.25" coil forms? AES sells 5-pin forms. I'm thinking of recreating the OV-1 regen receiver which used 6-pin forms. I suppose that I could use a 5-pin form with a banana plug hanging off to the side, but that would not be mechanically or esthetically pleasing. Now that I think about it, I could use an octal tube base with PVC pipe glued to it, too. Hmm....Still, I'd like to find the orignal forms if I could.

Thanks and 73,
Mike N5JKY
Edmond, OK

Date: Tue, 4 Mar 1997 11:00:10 -0700
From: jeffd@coriolis.com (Jeff Duntemann)
To: wmcshan@REX.RE.uokhsc.edu
Cc: glowbugs@theporch.com
Subject: Re: 6-pin coil forms
Message-ID: <3.0.32.19970304105130.00b5cb00@165.247.88.2>

Mike--

I know of no source for "new" 6-pin coil forms. AES used to sell octal coil forms, and at one point they sold unused black bakelite octal tube bases. You have to keep an eye on those guys.

I've had excellent luck sticking octal tube bases into plastic vitamin bottles. There was a common One-A-Day generic brand of Safeway vitamins that fit the octal base *perfectly* and I made a very effective BCB coil from it. You can see a picture of this coil in a breadboard regen in my picture collection JUNKBOX.ZIP on my FTP site:

ftp://ftp.coriolis.com/pub/Shareware

Look in the image pcregen1.jpg.

Smaller vitamin bottles make good SW coil forms. You have to buy bottles
to fit the bases, but we do lots of vitamins here and an amazing number of
bottles are good or close fits.

Getting the labels off is often a challenge, but I've wound wire over the
labels with no ill effects. BUT...GET ALL OF THE FOIL OFF THE RIM!
Nothing like a shorted turn of aluminum to make your Q go all to hell...

--73--

--Jeff Duntemann KG7JF
  Scottsdale, ARizona

At 04:57 PM 3/4/97 GMT, you wrote:
>Hi gang,
>
>Does anyone know of a source for 6-pin 1.25" coil forms? AES sells 5-pin
>forms. I'm thinking of recreating the OV-1 regen receiver which used 6-pin
>forms. I suppose that I could use a 5-pin form with a banana plug hanging
>off to the side, but that would not be mechanically or esthetically
>pleasing. Now that I think about it, I could use an octal tube base with
>PVC pipe glued to it, too. Hmm....Still, I'd like to find the orignal forms
>if I could.
>
>Thanks and 73,
>Mike N5JKY
>Edmond, OK
>
>
>

Date: Tue, 4 Mar 1997 12:17:30 -0600 (CST)
From: mjsilva@ix.netcom.com (michael silva)
To: glowbugs@theporch.com
Subject: Re: 6-pin coil forms
Message-ID: <199703041817.MAA29619@dfw-ix14.ix.netcom.com>

>Does anyone know of a source for 6-pin 1.25" coil forms?

I haven't seen these in quite a while. Probably just a matter of luck
if you run across some.

>Now that I think about it, I could use an octal tube base with
>PVC pipe glued to it, too.

That's what I do. 1-1/4 inch I.D. PVC pipe fits over the outside of an octal base with a bit to spare. I wedge bits of toothpick into the gap to hold things in place and fill the gap with glue (hot glue in my case). Best of all, dead octal tubes are easy to come by for bases. One thing, you may want to inspect some octal tubes to get an idea of which pins are commonly left off, to avoid "standardizing" on these pins. And of course you can also buy new bases from AES.

73,
Mike, KK6GM

Date: Tue, 4 Mar 1997 11:11:21 -0800
From: "James H. Haynes" <haynes@cats.ucsc.edu>
To: glowbugs@sco.theporch.com
Subject: coil forms
Message-ID: <199703041911.LAA10682@hobbes.UCSC.EDU>

Isn't PVC rather bad material at RF? Seems like I've heard that, and that some other kind of plastic pipe is better.

Ah, yes, here in my archives...
>>From darkstar!agate!spool.mu.edu!uunet!newsserver.pixel.kodak.com!kodak!ornitz Thu Jun 18 23:17:36 PDT 1992
>Article: 18343 of rec.radio.amateur.misc
>Path: darkstar!agate!spool.mu.edu!uunet!newsserver.pixel.kodak.com!kodak!ornitz
>From: ornitz@kodak.kodak.com (Barry Ornitz)
>Newsgroups: rec.radio.amateur.misc
>Subject: Re: Using PVC in antennas (a long discussion on plastics)
>Summary: PVC probably OK for most antenna uses
>Keywords: plastics, dielectrics, antennas
>Message-ID: <1992Jun18.230145.23140@kodak.kodak.com>
>Date: 18 Jun 92 23:01:45 GMT
>References: <1992Jun18.153715.25402@sequent.com>
>Sender: Barry L. Ornitz
>Followup-To: rec.radio.amateur.misc
>Organization: Eastman Kodak Company, Eastman Chemical Company Research Labs
>Lines: 85
>
>In article <1992Jun18.153715.25402@sequent.com> dale@sequent.com
>(Dale Mosby) writes:

>>A friend and I are building a 4 element 20 meter quad for Field Day.
>>we are using white plastic water pipe... I'm guessing this is PVC pipe...
>>Question is, can the wire of each element actually run through the pipe...
>>A recent posting implied that such material could not be used as an antenna
>>insulator.
>
>The question of whether polyvinyl chloride can be used as an antenna insulator
>has been blown far out of proportion by many hams who really know little
>about dielectrics. Having had a major research project a few years ago on
>the measurement of dielectric properties of plastics in the 1 to 200 MHz range,
>I think I can answer this question.
>
>Running your quad wires through the PVC will work fine. In the normal square
>quad (horizontal wires connect to the feedpoint), the spreader ends are not
>at high RF potentials. Even in a diamond quad where the horizontal spreaders
>are at voltage maxima, you will have no problem. Remember that old timers
>like myself used to use wood and bamboo spreaders - materials with far higher
>dielectric losses than PVC.
>
>You may run into problems with PVC if you use it as the dielectric in a
>coaxial capacitor for a gamma match, or in antenna traps, or wherever a high
>dielectric strength is needed. If you have much RF current going through the
>PVC, it will heat. But for many ham applications, it is fine.
>
>Most other plastics have lower dielectric losses than PVC. Unfortunately
>many of these are subject to problems from exposure to the weather and
>ultraviolet light. Polyethylene, for example, has excellent dielectric
>properties but cannot tolerate UV well - even with antioxidants and UV
>inhibitors. Outdoors, polyethylene rarely lasts more than two years.
>Polypropylene is similar, hence the short life of ski rope as an antenna
>support.
>
>Speaking of ropes, nylon is better than polypropylene but it does stretch
>and is subject to UV degradation. Nylon is similar to PVC in regards to its
>RF dielectric properties. Do not use it where it will be subjected to high
>RF fields. Probably the best ropes for antenna use are the polyester ropes.
>Dacron is the DuPont trade name for their poly(ethylene terephthalate) fiber.
>Chemically this is basically the same plastic as Mylar. The fellows that
>sell rope at hamfests get a premium for the name Dacron, but many companies
>make equivalent polyesters under other names (we make Kodel, for example).
>The plastic PET soft drink bottles are the same plastic. Rings cut from
>these bottles make good, light weight end-insulators for wire dipoles. Someone
>else mentioned using the plastic from bleach bottles in a similar application.
>This is polyethylene which would normally not hold up well except that the
>high white pigmentation protects it from UV. The PET bottles are subject to
>UV attack too. When choosing rope, look for black or olive-drab for the best
>UV resistance. White polyester rope containing lots of titanium dioxide
>pigment also resists UV fairly well.

>
>Some of the best plastic materials for outdoor antenna use are the acryllics.
>These are the Lucites and Plexiglass materials. Not only do they generally
>have good dielectric properties, they are also UV resistant. Acryllic spray
>paint, such as Krylon, does a good job of protecting antennas from corrosion.
>You can often extend the life of plastic parts on commercial antennas by
>carefully cleaning them after a year or two of use and painting them with
>acryllic paint. You often have to wait out the year of exposure to the
>elements for the plastic surfaces to oxidize (and surface craze) enough for
>the paint to stick.
>
>Unsaturated thermosetting polyesters, a.k.a. fiberglass resins, normally do
>a good job in RF applications. I once built an antenna using bamboo spreaders
>that I liked so much, I wrapped each spreader with fiberglass tape and
>impregnated it with resin to stiffen them and make them last outdoors. The
>main problem was the added weight. Fiberglass is a better performer with
>RF than phenolics, but since both are thermoset type materials, heating of
>the plastic by RF usually does not cause too many problems.
>
>I tend to agree with others on the net who laugh at hams who BUY rather than
>build their own wire antennas. The ARRL Antenna Book is one of the best
>investments a ham can make. Buy the book; then start experimenting. Use
>whatever materials are handy or available in the local building supply store.
>My discussion above should give you a few guidelines about what plastics are
>suitable for your applications.
>   73, Barry WA4VZQ
> -----------------
>| ___ ________ | Dr. Barry L. Ornitz   WA4VZQ
>| | / / | | Eastman Kodak Company
>| | / / | | Eastman Chemical Company Research Laboratories
>| |< < K O D A K| | Process Instrumentation Research Laboratory
>| | \ \ | | P. O. Box 1972, Building 167B
>| |__\ ________| | Kingsport, TN 37662   615/229-4904
>| | INTERNET: ornitz@kodak.com
> -----------------
>
>
>
>--LAA12988.857502200/cats.ucsc.edu--
>
>

Date: Tue, 4 Mar 1997 13:27:11 -0600 (CST)
From: Bob Roehrig <broehrig@admin.aurora.edu>
To: "James H. Haynes" <haynes@cats.ucsc.edu>
Cc: Multiple recipients of list <glowbugs@sco.theporch.com>

Subject: Re: coil forms
Message-ID: <Pine.ULT.3.95.970304132348.9233B-100000@admin.aurora.edu>

On Tue, 4 Mar 1997, James H. Haynes wrote:

> Isn't PVC rather bad material at RF? Seems like I've heard that, and that
> some other kind of plastic pipe is better.

I think the general opinion was that PVC is probably OK for HF, especially
receiver coils. SOmeone said a good was to test the material was to
put a piece of it in a microwave oven (along with a cup of water for
a load for the oven). If the PVC doesn't get hot at that frequency, it is
OK.

        E-mail broehrig@admin.aurora.edu   73 de Bob, K9EUI
            CIS: Data / Telecom   Aurora University, Aurora, IL
                      630-844-4898 Fax 630-844-5530

Date: Tue, 4 Mar 1997 14:18:26 -0600 (CST)
From: mjsilva@ix.netcom.com (michael silva)
To: glowbugs@theporch.com
Subject: Re: coil forms
Message-ID: <199703042018.OAA04320@dfw-ix11.ix.netcom.com>

>On Tue, 4 Mar 1997, James H. Haynes wrote:
>
>> Isn't PVC rather bad material at RF? Seems like I've heard that,
>>and that some other kind of plastic pipe is better.
>
>I think the general opinion was that PVC is probably OK for HF,
>especially receiver coils. SOmeone said a good was to test the
>material was to put a piece of it in a microwave oven (along with a
>cup of water for a load for the oven). If the PVC doesn't get hot at
>that frequency, it is OK.

That's also what I heard, and when I tried it the PVC came out without
the slightest hint of warming. If I knew of some other
easily-available (key phrase) plastic tubing that had the right
physical properties I'd try it, but we should also remember that our
predecessors often used lots worse. BTW, I've also heard the grey
(UV-resistant) PVC is not as good as the white, due to the additives
used in it.

73,
Mike, KK6GM

Date: Tue, 4 Mar 1997 13:29:38 -0700
From: jeffd@coriolis.com (Jeff Duntemann)
To: glowbugs@theporch.com
Subject: Reliable source of good-quality coil forms
Message-ID: <3.0.32.19970304132057.00bdae60@165.247.88.2>

Hi gang--

I don't recall if I ever mentioned this on the list before, but you can buy very nice polystyrene coil forms for low-power (and receiver) work as coin tubes sold to coin collectors. I think "Whitman" is the brand name. (I'm not a coin collector so I don't have all that memorized.) They come in several sizes, as you can imagine, from dime-sized to silver dollar sized. The tubes for larger coins are shorter than those for dimes and pennies, as they're sized to hold standard rolls of coins. They're fairly thin so you can't run a lot of power over them or wind them with #4 wire, but for QRP work they've done well for me. I've used them a handful of times, and would use them more if I lived near a coin shop.

Polystyrene is a good dielectric material (I don't know to how high but I used on on 6m once), the tubes are fairly cheap, standard sized, and easily available at most hobby shops and any coin/stamp shop. I would guess that if you carefully cut out logitudinal slots in the plastic and wound them with tinned wire, you'd come as close to "new" Miniductors as it's possible to come in the home shop.

Just a thought.

--73--

--Jeff Duntemann KG7JF
  Scottsdale, Arizona

Date: Tue, 04 Mar 1997 16:17:31 -0600
From: "Robert M. Bratcher Jr." <bratcher@worldnet.att.net>
To: glowbugs@sco.theporch.com
Subject: Porch address change?
Message-ID: <3.0.32.19970304152258.00699c38@postoffice.worldnet.att.net>

I know they had problems at theporch for awhile however I'm noticing a new

address that messages are sent from.

glowbugs@sco.theporch.com

Is this correct? Or does glowbugs@theporch.com still work?

Robert M. Bratcher Jr.
E-mail to:
bratcher@worldnet.att.net
Record collector, 8mm, super 8, 16 and 35mm Film collector.
I like old radio's too.
Collins, Hallicrafters, National & Hammurland are my Favorites!

Date: Tue, 4 Mar 1997 18:14:26 +0000
From: "Brian Carling" <bry@mail1.mnsinc.com>
To: glowbugs@theporch.com
Subject: Re: Porch address change?
Message-ID: <199703042313.SAA07623@news2.mnsinc.com>

sco is just the name of the mail server.

I think you can still send your articles to glowbugs@theporch.com and
they will show up OK. At least I will try that with this one and if
you can read it then you know that it works, he he!

On 4 Mar 97 at 22:21, Robert M. Bratcher Jr. spoke about Porch
address change? and said:

> I know they had problems at theporch for awhile however I'm noticing a new
> address that messages are sent from.
>
> glowbugs@sco.theporch.com
>
> Is this correct? Or does glowbugs@theporch.com still work?
>
> Robert M. Bratcher Jr.
> E-mail to:
> bratcher@worldnet.att.net
> Record collector, 8mm, super 8, 16 and 35mm Film collector.
> I like old radio's too.
> Collins, Hallicrafters, National & Hammurland are my Favorites!
>
>
****
*** 73 from Radio AF4K / G3XLQ in Gaithersburg, MD USA *
** E-mail to: bry@mnsinc.com   *

*** See the great ham radio resources at: *
** http://www.mnsinc.com/bry/   *
****

Date: Tue, 4 Mar 1997 14:55:55 -1000
From: Jeffrey Herman <jeffreyh@hawaii.edu>
To: Jeff Duntemann <jeffd@coriolis.com>
Subject: Re: Reliable source of good-quality coil forms
Message-ID: <Pine.GSO.3.93.970304145042.5245A-100000@uhunix5>

I save pill bottles just for this very purpose; also small-diameter
cardboard tubes (such as the wife's/girfriend's fem hygiene thingie),
et cetera...
Jeff KH2PZ

Date: Tue, 4 Mar 1997 19:14:38 -0800
From: herr@ridgecrest.ca.us (Michael Herr)
To: glowbugs@theporch.com
Subject: Re: coil forms
Message-ID: <v01530503af429565c4b3@[199.120.150.137]>

I've expericanced problems using PVC in antenna tuner coil forms, don't
think I'll use PVC for that again!
73
Mike WA6ARA

>On Tue, 4 Mar 1997, James H. Haynes wrote:
>
>> Isn't PVC rather bad material at RF? Seems like I've heard that, and that
>> some other kind of plastic pipe is better.
>
>I think the general opinion was that PVC is probably OK for HF, especially
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>
>   E-mail broehrig@admin.aurora.edu   73 de Bob, K9EUI
>   CIS: Data / Telecom   Aurora University, Aurora, IL
>   630-844-4898 Fax 630-844-5530

End of GLOWBUGS Digest 464
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